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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,265	07/19/2001	Anthony Vernon Walker Smith	15-979	9891
27667	7590	05/20/2005	EXAMINER	
HAYES, SOLOWAY P.C. 130 W. CUSHING STREET TUCSON, AZ 85701			LI, SHI K	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

09/909,265

Applicant(s)

SMITH ET AL.

Examiner

Shi K. Li

Art Unit

2633

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 05 May 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: 10, 12-15, 18 and 21-25.  
Claim(s) rejected: 1-9, 11, 16, 17, 19, 20 and 26-37.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.


**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

Continuation of 11. does NOT place the application in condition for allowance because: The Applicant argues that Kim does not disclose or suggest the engineering of such paths as is required by claims 1, 3-4, 16 and 36. The Examiner disagrees. FIG. 1 of Kim shows a 10-hop lightpath which is a concatenation of two 2-span paths and two 3-span paths. The placement of regenerators breaks a lightpath into a plurality of smaller (shorter) regenerator paths.

The Applicant argues that Kim nor Banerjee, taken separately or in combination, neither suggest the construction of 'n' valid link paths connecting a source node and destination node nor the configuring of 'm' groups of viable regenerator paths corresponding to a respective associated link path, as recited in claim 2. The Applicant then argues that there is no suggestion or motivation in Kim or Banerjee to combine one with the other. The Examiner disagrees. To appreciate the teaching of Kim and Banerjee, some background knowledge is helpful. Kim and Banerjee address the problem of wavelength routing in mesh WDM network. Kim clearly indicates that the regenerator placement algorithms are built on top of wavelength routing and cites in the introduction section references [1-3], i.e., Ramaswami et al., Zhang et al. and Mokhtar et al., which are included in PTO-892 of instant Office Action as prior art references. Banerjee also teaches improvement on wavelength routing and cites, for example, Zhang et al. In summary, the teachings of Kim and Banerjee are as follows. Given a WDM mesh network, we want to setup lightpaths between source-destination pairs. There may exist a plurality of lightpaths between a given source-destination pair. Banerjee teaches to find an optimal lightpath that meets certain criteria. Once an optimal lightpath is found or selected, Kim teaches to divide the lightpaths into a plurality of regenerator paths such that the cost is minimized. This reads on claim 2 and claims 19-20.

Regarding claim 34, Kim suggest in page 26, left col., Eq. (2) to minimize a cost function for determining the placement of regenerators. The cost function depends on two parameters:  $B_{ij}$  and  $q(i,j)$ .  $B_{ij}$  corresponds to the performance parameter of instant claim and  $q(i,j)$  corresponds to status and operation parameter of instant claim. Kim suggests in Eq. (3) that  $q(i,j)$  depends on the number of unoccupied Tx/Rxs (i.e., regenerators) of node  $j$ . It is understood that once the placement of regenerator has been determined, the regenerators are switch into the operation in the path between the source and destination..

  
M. R. SEDIGHIAN  
PRIMARY EXAMINER